

# **Towards Defining, Assessing and Reporting Against National Standards for Literacy and Numeracy in New Zealand**

## **The New Zealand Assessment Academy**

**March 2009**

### ***Introduction***

The Education (National Standards) Amendment Act 2008 sets in place the government's ten-step Crusade for Literacy and Numeracy (Hon. John Key, 13 October, 2008). As part of that Crusade: (i) national standards will be set in literacy and numeracy; (ii) every primary and intermediate student will be assessed regularly against the national standards; and (iii) every primary and intermediate school will report to parents in plain English about how their child is doing compared to national standards and compared to other children their age. Where it is indicated, targeted funding will be provided to enable schools to give assistance to the students who do not meet national standards.

This paper discusses these elements of the Amendment Act, (referred to as 'national standards' in this paper for simplicity), proposes a number of principles that should underlie the design of an assessment, analysis and reporting system based on them; and makes several suggestions for supporting their development and successful implementation.

The introduction of national standards in education, and in particular, the assessment and reporting of student and school-level data to parents and the Ministry of Education, constitutes a major break from current practice in New Zealand, and needs to be implemented with care and consideration to both intended and possible unintended consequences. We know from lessons learned in England and the USA such a programme of assessment can have serious negative impacts on schooling and school children. The purpose of this paper is to provide advice concerning such issues and to make recommendations that we believe will enhance positive consequences and minimize negative consequences.

In many spheres of education and assessment, New Zealand has led the way internationally. This has become evident through the international interest seen in the approaches that New Zealand has taken in areas, such as national monitoring through NEMP; national assessment resources such as asTTle, the PATs, Reading Recovery assessments, the ARBs, and national exemplars; the high quality school-wide professional development programmes through which substantial gains have been made in promoting and implementing effective literacy and numeracy practices, formative assessment practices, and the power of evidence-based practice; and through the NZAA-supported international conference on formative assessment to be

held in New Zealand in March 2009 (bringing top 25 assessment people to NZ from Europe, UK, USA, Canada, and Australia).

With the introduction of this legislation, New Zealand continues to be uniquely placed to respond in ways that are beneficial to the crusade to improve the literacy and numeracy achievement of students; continue to value a broad balanced curriculum; recognise and support the professional expertise and work of teachers as our primary educators, and schools as professional organizations; and provide evidence of (improving) literacy and numeracy achievement for all the nation's children in ways that enhance educational experiences and outcomes.

## ***Key principles***

We propose eight key principles that should underlie the design and implementation of national standards in literacy and numeracy, and of the assessing, monitoring and reporting of students' achievements in relation to these standards.

1. *Promote the educational progress of all students.* New Zealand education has a strong tradition of placing the child at the centre of the interactions among system, school, teacher and parents, and of striving for equitable outcomes for *all* children. The focus of educational policy and practice relating to national standards should be on maximising benefit and minimising harm for students.
2. *Optimise the positive impacts of the strategy on students' learning and educational experiences.* Effective teaching and learning in the classroom rely upon three key interactions: between the teacher and the student (rapport); the teacher and the curriculum (teaching); and the student and the curriculum (learning). Monitoring students' progress on the national standards of literacy and numeracy should be done in ways that pay attention to the latter two, while maintaining excellent rapport. We need to promote a positive and professional approach to teaching and learning, one with both rigour and flexibility.
3. *Minimise negative impacts of the strategy on students' learning and educational experiences.* The requirements of the national literacy and numeracy standards will send a message to schools and the public about what is valued in the education of our students. It will be important that national standards do not undermine a *balanced* curriculum or the educational experiences of *all* students. Rather than there being an overemphasis on tests, there needs to be an emphasis on students, teachers, and parents appropriately interpreting information about student progress. In addition, national standards should complement, rather than compete with existing initiatives that have been shown to improve students' learning.
4. *Make the standards evidence-based and achievable.* The national standards should take careful account of current levels of achievement, and promote goals that are challenging but achievable (and therefore motivating) across the wide range of students. Theoretically-developed expectations of what individual students ought to be able to do, but which are far removed from current reality, are not helpful. Sensible, achievable and appropriately

challenging national standards in literacy and numeracy would emerge from a blend of what students can currently do and what they might reasonably be expected to do.

5. *Ensure that teachers' professional expertise is utilised and enhanced.* National standards need to be stated in a way that they do not become prescriptive of teachers' work on schools, but supportive of it. The worst systems elsewhere over-ride teachers, such that teachers have no input into major influence over the student achievement information that is generated, and perceive their extensive knowledge of their students as not valued. The standards should recognise the expertise our teachers possess and promote their further professional development.
6. *Acknowledge that parents have a right to be well informed.* Parents should receive trustworthy and meaningful information about their children's achievement and progress so that, together with the teacher and child, they can identify aspects to celebrate and aspects needing attention. Parents should be provided with information that helps them to be active participants in their children's educational growth.
7. *Adopt a solution that particularly suits New Zealand.* There should be sufficient flexibility and choice to fit with New Zealand's model of self-governing schools and the corresponding flexibility built into the New Zealand Curriculum. New Zealand can take notice of the lessons hard learnt in overseas countries implementing national standards and national 'testing'. The strategy should be consistent with the philosophy and intent of the new Directions for Assessment in New Zealand (Absolom, Flockton, Hattie, Hipkins & Reid, 2008).
8. *Value multiple sources of evidence.* It is a well-accepted measurement principle that no single source of information (test score, teacher's assessment) can provide an unequivocally accurate summary of a student's achievement. This is true at the school and national levels as well. Multiple sources of evidence are necessary in order to compile as comprehensive a picture as possible of the areas of progress, areas requiring attention, and what the particular progress looks like.

### ***Defining national standards in literacy and numeracy***

In addition, it is our view that the standards should:

1. *Be 'rich'*; that is, articulated as broad, multi-faceted *descriptive indicators* of what students at each year level can achieve/can reasonably be expected to achieve in literacy and numeracy. Previous experience with multiple learning objectives in curriculum statements led to over-assessment using checklists for compliance reasons rather than for pedagogical reasons. The national standards of literacy and numeracy for each class level should be *indicative* of what children who achieve at that standard can do, rather than an exhaustive list of all the objectives that should be attained at that level. This will reduce the temptation of regarding the national standards as a detailed blueprint for teaching and assessment.

2. *Have multiple levels.* The national standards for each year level in literacy and numeracy need to include several bands of achievement so that there is incentive for *all* students and teachers to continue to make measured improvements to their achievement. Unlike a single level, multiple levels allow for demonstrated growth (progress) in achievement to be possible for all students.
3. *Focus on growth* The standard setting model should encourage a focus on growth in literacy and numeracy (improvement towards a reaching a standard) rather than simply a measure of whether or not a standard has been achieved. Viewing national standards in this way will reduce the likelihood of students being viewed as either a ‘success’ or a ‘failure’ and will increase the likelihood of students and parents perceiving students as on a journey to good literacy and numeracy.
4. *Provide ‘benchmarks’ against which teachers can readily, validly and reliably interpret their students’ progress.* While the national standards should be evidence-based, and based on sound theories of literacy and numeracy development, they should also be expressed in plain language so as to be readily understood and interpreted by teachers, students and parents. This would assist in developing students’ assessment capabilities that is central to the new Directions for Assessment in New Zealand. Benchmarks should also be aligned with the levels of the curriculum, progressions, and measurement scales of nationally validated tools.

### ***Assessing and reporting against national standards***

The Minister of Education has stated that assessing and reporting on national standards will build on the nationally validated normative assessment tools that already exist (Tolley, 2009). These are well regarded tools of high quality. The NZAA strongly supports this decision. This builds on the expertise gained by teachers to use the information from these tools formatively within their classrooms/schools to better target the educational needs of their students, and monitor their progress. The freedom of schools and teachers to choose from a range of nationally validated tools acknowledges the diversity of students in New Zealand schools and prevents a ‘one size (tool) fits all’ approach to measuring students’ nationally-referenced growth in literacy and numeracy.

The national standards legislation requires each school to report to parents, in plain language, how their child is achieving compared to national standards and compared to other children their age. Planning and Reporting legislation also requires schools to individually identify achievement targets for their school (because they know their students well) and to provide evidence to their Boards of Trustees and the Ministry of Education of how these targets have been achieved. It will be important that external reporting does not jeopardise the internal targets set by schools.

These requirements suggest three levels of reporting students’ achievement compared to the national standards and compared to other children of the same age/year:

- *a student report card* for parents reporting individual students’ achievement;

- *a class/school report card* for the Board of Trustees and the Ministry of Education indicating class/school-wide achievement; and
- *a national report card* showing students' achievement nationally of selected year level cohorts.

While annual individual and class/school report cards at all year levels will be necessary and useful, the preparation of a national report card may be different. Given the collection of assessment information about students' level and rate of progress from other national and international assessment programmes such as, NEMP, PIRLS, TIMSS and PISA, it may be more appropriate to prepare a national report for some, but not all year levels; and/or prepare a national report card at two, three or four yearly intervals rather than annually. We should seek to align the different sources of evidence in sensible ways that best inform the purpose for the national report card.

A useful report card would include information that is:

1. *Trustworthy*. The audience of the report card needs to be able to trust the information that is reported. This means that the information has multiple sources of evidence (e.g., nationally validated assessments geared to the NZ curriculum, student work samples showing growth and level of performance), has good validity, is reliable, and is a fair account of students' level and rate of progress whether for an individual, class/school, or year level.
2. *Comprehensible*. The audience of the report card needs to be able to readily understand the information that is being communicated to it. For parents, this requires the information to be communicated in plain language. This will require evidence that parents are interpreting the information appropriately and are satisfied that they are aware of their children's level and rate of progress.
3. *Relevant*. The audience of the report needs to be able to receive information that is useful and meets its needs. For example, parents have a need, and a right, to know how their child is achieving compared to national standards and compared to similar children of their age, whether their child is making progress towards the national standards; what their child can do (examples of the types of literacy and numeracy skills their child has); and how their child's needs can be met.
4. *Evidence-based*, that is, reports assessment information and gives examples of typical achievement/progress.
5. *Uses a weight of evidence* A comprehensive and more valid measure of students' progress should use a 'weight of evidence' from several sources as no single method of assessing achievement and progress can provide an unequivocally accurate picture of a student's achievement. When multiple sources of evidence are assembled, evaluated, weighed up against each other, it is possible to provide a more balanced and well-rounded indication of student achievement/growth. This necessarily depends upon sound professional expertise in assembling and interpreting information from a range of sources, to arrive at a 'professionally considered' account of student achievement. For example, for a student report card, a teacher has access to

his/her own classroom-based assessments of her students' achievement (whether recorded formally, or held informally in their head) as well as nationally referenced measures of student achievement/progress. Similarly, the Ministry of Education has multiple sources of information from NEMP, international studies, planning and reporting information from school, and ERO reports among other sources of information to monitor the progress of students at a national level.

6. *Is a 'best fit' / weight of evidence report.* A best fit report of student growth and levels of performance takes into account the multiple sources of evidence that are available to the person preparing the report. For example, a classroom teacher has many sources of evidence about a student's achievement gathered over the course of the year. Teacher assessments are likely to have excellent content validity (that is, cover the specific content and skills taught throughout the year). In addition, a nationally validated tool is likely to provide an excellent measure of a student's achievement in some aspects in literacy or numeracy (but not all aspects due to the nature of sampling content and skills). A teacher can use this array of evidence to reflect and decide on a measure of a student's progress that 'best fits' that student.

The advantages of a best fit/weight of evidence report are that it:

1. Benefits from the close, well-informed day-to-day assessments that only teachers can accumulate about a teacher's extended interactions with that student during the course of a year and over the full range of literacy activities.
2. Reports a nationally validated score that is independent, and is of known technical quality.
3. Allows teachers to consider their evidence of a student's progress in light of nationally validated tools.
4. Values teachers' assessments of their students and utilizes their particular expertise.
5. Provides a professional development opportunity for teachers to evaluate their assessments against normative information, and therefore refine their understandings and interpretations of the national standards.

For each report card, there are multiple sources of information available to inform a best fit judgement of students' progress against the national standards. The information that would be useful to report include students':

1. *Progress.* Progress in students' achievement against the national standards both in terms of the levels of proficiency and the progress over the term of the report.
2. *Strengths.* Aspects of the curriculum in which the student is particularly successful.
3. *Areas of need or concerns.* Aspects of the curriculum in which the student need further assistance to reach the desired standards.
4. *Recommendations* for teachers and parents; and
5. *Examples* of student work to demonstrate levels of proficiency and progress (or areas of concern).

## ***Getting it right***

To support the introduction of national standards, we suggest that a programme of research and professional learning be planned to accompany their design and implementation. Several areas of focus might include the following:

1. Construction of policy and practices around national standards by policy makers, teachers, literacy/numeracy experts, researchers with measurement expertise.
2. Alignment/calibration of the national standards with scales/measures of progress (levels and growth) from nationally validated assessment tools.
3. Determining a ‘warning’ zone for each year level which indicates the critical level of achievement/progress below which primary and intermediate students risk not reaching adequate literacy or numeracy by year 8 in order to successfully engage with year 9 studies at secondary school; and ask schools to provide resolutions to reduce the number of students in this zone.
4. Professional learning and support for teachers to (i) interpret and implement the national standards; (ii) analyse nationally validated assessment information and use it to determine a best fit score for each student; and (iii) report and communicate students’ progress in plain language.
5. Monitoring the impact (validity, reliability and manageability) of the design, assessment and reporting of the national standards as they are being implemented

The New Zealand Assessment Academy would welcome the opportunity to contribute to the work of designing and implementing national standards.

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